

Jurnal Keperawatan Komprehensif

(Comprehensive Nursing Journal)



*A Journal of Nursing Values, Innovation, Collaboration,
and Global Impact*

Volume 12, Issue 2, April 2026

Published by STIKep PPNI Jawa Barat

ISSN 2354-8428, e-ISSN 2598-8727



Digital Queueing Innovation and Outpatient Service Quality: Integrating Technology Acceptance and SERVQUAL at a Military Hospital in Indonesia

Alfina Mentari Salsabila¹, Suhat Suhat², Novie Elvinawaty Mauliku², Ayu Laili Rahmiyati²

¹Jurusan Magister Kesehatan Masyarakat, Fakultas Ilmu dan Teknologi Kesehatan, Universitas Jenderal Achmad Yani, Jl. Terusan Jenderal Sudirman, Cimahi, Jawa Barat 40531

²Departemen Magister Kesehatan Masyarakat, Fakultas Ilmu dan Teknologi Kesehatan, Universitas Jenderal Achmad Yani, Jl. Terusan Jenderal Sudirman, Cimahi, Jawa Barat 40531



**Jurnal Keperawatan Komprehensif
(Comprehensive Nursing Journal)**

Volume 12 (2), 308-315
<https://doi.org/10.33755/jkk.v12i2.1015>

Article info

Received : April 03, 2026
Revised : April 24, 2026
Accepted : April 25, 2026
Published : April 30, 2026

Corresponding author

Alfina Mentari Salsabila*
Fakultas Ilmu dan Teknologi Kesehatan,
Universitas Jenderal Achmad Yani
Jl. Terusan Jenderal Sudirman, Cimahi, Jawa
Barat 40531, Indonesia
Email: alfinamentarii@gmail.com

Citation

Salsabila, A. M., Suhat, S., Mauliku, N. E., & Rahmiyati, A. L. (2026). Digital queueing innovation and outpatient service quality: Integrating technology acceptance and SERVQUAL at a military hospital in Indonesia. *Jurnal Keperawatan Komprehensif (Comprehensive Nursing Journal)*, 12(2), 308–315.
<https://doi.org/10.33755/jkk.v12i2.1015>.

Website

<https://journal.stikep-ppnijabar.ac.id/jkk>

This is an **Open Access** article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License



p-ISSN : [2354 8428](https://doi.org/10.33755/jkk.v12i2.1015)
e-ISSN: [2598 8727](https://doi.org/10.33755/jkk.v12i2.1015)

Abstract

Background: Long waiting times in outpatient services often reduce service quality. Digital solutions such as online queue systems, including Mobile JKN, are increasingly used to improve efficiency, but their impact on overall service quality remains unclear.

Objective: This study aims to examine how effective an online queue system is in improving service quality at Dustira Hospital.

Methods: A quantitative approach with a cross-sectional design was applied. Participants were selected through purposive sampling, resulting in a total of 379 respondents. Data were collected using structured questionnaires with Likert-scale responses to assess both the performance of the online queue system and perceived service quality. The independent variable refers to the effectiveness of the online queue system, evaluated using the Technology Acceptance Model (TAM), which includes perceived usefulness, perceived ease of use, behavioral intention, and actual system utilization. The dependent variable is service quality, measured through SERVQUAL dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Data analysis consisted of univariate statistics, Chi-square testing for bivariate analysis, and logistic regression for multivariate analysis.

Results: Most respondents were adults aged 18–59 years, male, and had completed secondary education. Bivariate analysis showed a significant association between online queue system effectiveness and perceived service quality ($p < 0.05$). In the multivariate model, perceived ease of use emerged as the only significant predictor of service quality ($p < 0.05$; OR = 1.874), indicating that patients who perceived the system as easier to use were more likely to report better service quality.

Conclusion: The implementation of an online queue system contributes positively to service quality at Dustira Hospital. Greater ease in system usage is associated with better perceived service quality among patients.

Keywords: Online Queue System, Service Quality, SERVQUAL, Technology Acceptance Model.

INTRODUCTION

Healthcare facilities serve as organized systems that deliver comprehensive services, including promotive, preventive, curative, and rehabilitative care, provided by governmental, regional, or community-based institutions. Hospitals, as primary healthcare providers, are expected to deliver efficient, timely, and patient-centered services to meet increasing healthcare demands. Within this context, service effectiveness is reflected in the ability to achieve intended outcomes, such as reducing waiting time and enhancing patient satisfaction (1,2).

One of the persistent challenges in hospital service delivery is prolonged waiting time, particularly in outpatient registration processes. Conventional manual administrative systems often involve multiple steps, including patient data entry, verification, and queue management, which are prone to inefficiencies and human error (3). These issues are further exacerbated by high patient volumes without proportional increases in healthcare workforce capacity, leading to decreased service quality and patient dissatisfaction (4). In Indonesia, national service standards emphasize the importance of timely healthcare delivery, including outpatient waiting times of less than 60 minutes (5).

The rapid advancement of digital health technologies has created new opportunities to address these challenges. Mobile and web-based healthcare systems enable more efficient service processes by facilitating remote registration, reducing administrative burden, and improving service coordination (6,7). One prominent example in Indonesia is Mobile JKN, which allows patients to access healthcare services, including online outpatient registration, through digital platforms (8,9). Previous studies have shown that such systems can improve patient satisfaction, reduce waiting times, and enhance trust in healthcare services (10,11).

Despite these advancements, the effectiveness of digital queue systems is not solely determined by system availability but also by user acceptance and experience. The Technology Acceptance Model (TAM) provides a widely used framework to evaluate how users perceive and adopt technology, emphasizing constructs such as perceived usefulness, perceived ease of use, behavioral intention, and actual system usage (12,13). Among these, perceived usefulness and ease of use are critical factors influencing system

adoption and its impact on service outcomes (14). Complementarily, service quality in healthcare is commonly assessed using the SERVQUAL model, which includes dimensions of tangibles, reliability, responsiveness, assurance, and empathy.

Previous studies have demonstrated that digital health systems can positively influence service quality and patient satisfaction by improving efficiency and reducing operational barriers (15,16). However, several challenges remain, including limited digital literacy among certain patient groups, unstable network infrastructure, and inaccuracies in data entry, all of which may hinder optimal system performance (16). In addition, many studies have primarily focused on operational outcomes such as waiting time reduction, with limited exploration of how technology acceptance factors translate into broader service quality perceptions.

Dustira Hospital represents a healthcare facility with a high outpatient volume where waiting time remains a critical issue, often exceeding national service standards. Although an online queue system has been implemented through Mobile JKN and the hospital's internal platform, its effectiveness in improving overall service quality has not been comprehensively evaluated. Moreover, there is limited empirical evidence integrating TAM and SERVQUAL to explain how digital system acceptance influences patient-perceived service quality in real-world hospital settings.

Therefore, this study aims to examine the relationship between the effectiveness of the online queue system and service quality at Dustira Hospital. By integrating technology acceptance and service quality frameworks, this study provides a more comprehensive understanding of how digital health systems contribute to healthcare service improvement.

METHODS

Study Design

This research applied a quantitative methodology using a cross-sectional design. The study was conducted to assess the relationship between the effectiveness of an online queue system and perceived service quality among outpatients at Dustira Hospital. The cross-sectional approach enabled the measurement of all variables at a single point in time, allowing for

the identification of associations between system-related factors and service outcomes.

Sample and Sampling Technique

The target population comprised all outpatient individuals who had utilized the online queue system at Dustira Hospital. The accessible population included patients who met the eligibility criteria during the data collection period. A purposive sampling technique was employed to ensure that participants had relevant experience with the system being evaluated. Inclusion criteria were defined as follows: (1) patients registered as outpatients at Dustira Hospital, (2) individuals who had used the online queue system, (3) aged above 17 years, and (4) willing to participate voluntarily in the study. The sample size was determined using the Lemeshow formula, which is commonly applied in health research to estimate the minimum required sample. Based on this calculation, a total of 379 respondents were included in the study.

Research Instruments

Data were collected using structured questionnaires designed to measure two main variables: the effectiveness of the online queue system and service quality. The instrument assessing system effectiveness was developed based on the Technology Acceptance Model (TAM), which includes four constructs: perceived usefulness, perceived ease of use, behavioral intention to use, and actual system usage. This questionnaire consisted of 12 items. Service quality was measured using the SERVQUAL framework, which encompasses five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. A total of 13 items were used to evaluate these dimensions. Both instruments utilized a four-point Likert scale ranging from strongly disagree (score 1) to strongly agree (score 4). The use of an even-numbered scale was intended to minimize neutral responses and encourage more definitive answers. Scores for each variable were categorized using mean and standard deviation values. For system effectiveness, the categories included highly effective, moderately effective, and less effective. Similarly, service quality scores were classified into very good, adequate, and poor categories based on predefined cut-off points. Prior to the main data collection, the instruments underwent validity and reliability testing involving 20 outpatient respondents from Cibabat Hospital who had experience using a similar system. Item

validity was assessed using product-moment correlation, while internal consistency was evaluated using Cronbach's alpha coefficient, with a minimum acceptable value of 0.60.

Data Collection Procedure

Data were collected through face-to-face administration in the outpatient setting. Eligible participants were approached after completing their healthcare services. The study purpose and procedures were explained, and written informed consent was obtained prior to participation. Participants completed the questionnaire independently to ensure responses reflected their personal experiences. Research assistants were present to provide clarification when necessary while minimizing response bias. Completed questionnaires were reviewed for completeness before inclusion in the dataset.

Data Analysis

The collected data were analyzed using a combination of descriptive and inferential statistical methods. Univariate analysis was performed to describe the characteristics of respondents, including age, gender, and educational background, presented in frequency distributions and percentages. Bivariate analysis was conducted using the Chi-square test to examine the association between the effectiveness of the online queue system and service quality. This test was selected due to the categorical nature of the variables. To identify the most influential factors affecting service quality, multivariate analysis was performed using logistic regression. This approach allowed for the evaluation of the relative contribution of each independent variable while controlling for others. Statistical significance was determined at a p-value of less than 0.05.

Ethical Considerations

Ethical principles were carefully observed throughout the study. Participation was entirely voluntary, and informed consent was obtained from all respondents prior to data collection. Participants were assured that their responses would remain confidential and would be used solely for research purposes. No personal identifiers were recorded, ensuring anonymity and privacy. Respondents were also informed of their right to withdraw from the study at any stage without any consequences. The study adhered to general ethical standards for research involving human participants.

RESULT

Table 1. Distribution of Respondent Characteristics (N = 379)

Variable	Category	Frequency (n)	Percentage (%)
Age	10–17 (Adolescent)	1	0.3
	18–59 (Adult)	368	97.1
	> 60 (Elderly)	10	2.6
Gender	Male	207	54.6
	Female	172	45.4
Education	Primary School	4	1.1
	Junior High School	44	11.6
	Senior High School	158	41.7
	Diploma (D3)	82	21.6
	Bachelor (S1)	91	24.0

Table 2. Cross-tabulation of Online Queue System Effectiveness and Service Quality

Online Queue System Effectiveness	Good (n, %)	Moderate (n, %)	Poor (n, %)	Total (n)	p-value
Moderate	58 (15.3%)	175 (46.2%)	0 (0.0%)	223	0.000
Effective	20 (5.3%)	41 (10.8%)	0 (0.0%)	61	
Not Effective	0 (0.0%)	78 (20.6%)	7 (1.8%)	85	
Total	78 (20.6%)	294 (77.5%)	7 (1.8%)	379	

Table 3. Logistic Regression Analysis of Factors Influencing Service Quality

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Perceived Usefulness (PU)	-0.099	0.161	0.380	1	0.538	0.906
Perceived Ease of Use (PEOU)	0.628	0.134	21.931	1	0.000*	1.874
Behavioral Intention (BI)	0.334	0.176	3.592	1	0.058	1.397
Actual System Usage (ASU)	-0.050	0.153	0.110	1	0.741	0.951
Constant	-9.699	1.579	37.713	1	0.000	0.000

*Significant at $p < 0.05$

Respondent Characteristics

The distribution of respondent characteristics is presented in Table 1. The findings indicate that the majority of participants were within the adult age group (18–59 years), accounting for 368 individuals (97.1%). A smaller proportion consisted of elderly participants aged over 60 years (2.6%), while only one respondent (0.3%) was categorized as an adolescent. In terms of gender, male respondents slightly outnumbered females, with 207 individuals (54.6%) compared to 172 individuals (45.4%). Regarding educational background, most respondents had completed senior high school (41.7%), followed by those with undergraduate education (24.0%) and diploma-level education (21.6%). A smaller proportion had lower educational attainment, including junior high school (11.6%) and primary school (1.1%). These findings suggest that users

of the online queue system were predominantly individuals of productive age with moderate to high educational levels.

Association Between Online Queue System Effectiveness and Service Quality

The cross-tabulation results presented in Table 2 demonstrate that the largest proportion of respondents perceived both the effectiveness of the online queue system and service quality at a moderate level, totaling 175 individuals (46.2%). Statistical analysis using the Chi-square test revealed a p-value of less than 0.05 ($p = 0.000$), indicating a significant association between the effectiveness of the online queue system and perceived service quality at Dustira Hospital. This finding implies that improvements in system effectiveness are likely to be associated with better service quality as perceived by patients.

Multivariate Analysis

The results of the logistic regression analysis are presented in Table 3. Four independent variables derived from the Technology Acceptance Model (TAM) were examined: perceived usefulness (PU), perceived ease of use (PEOU), behavioral intention (BI), and actual system usage (ASU). Among these variables, only perceived ease of use demonstrated a statistically significant effect on service quality ($p < 0.05$). The odds ratio (Exp(B)) for this variable was 1.874, indicating that respondents who perceived the system as easy to use were approximately 1.87 times more likely to report good service quality compared to those who perceived it as difficult to use. In contrast, the remaining variables did not show significant associations with service quality. Specifically, perceived usefulness yielded a p-value of 0.538, behavioral intention showed a p-value of 0.058, and actual system usage had a p-value of 0.741. These results suggest that these factors did not independently influence patients' perceptions of service quality within the context of this study. The regression model also produced a constant value of -9.699 with a significant p-value ($p = 0.000$), indicating that in the absence of the independent variables, the likelihood of achieving good service quality would be very low.

DISCUSSION

This study examined respondent characteristics, including age, gender, and educational background, among users of the online queue system at Dustira Hospital. The findings indicate that most participants were within the productive age range of 18–59 years. This distribution suggests that the primary users of the system are individuals with active daily routines who often require efficient healthcare services with minimal waiting time. Previous studies have also reported that individuals in this age group tend to be more receptive to digital health technologies, as these tools support convenience and time efficiency in daily activities.

Although the majority of users were adults, the inclusion of elderly respondents demonstrates that the online queue system has reached a broader age spectrum. However, older individuals may encounter challenges related to limited digital literacy and lower confidence in using electronic systems. International guidelines emphasize the importance of age-friendly digital health solutions to prevent

disparities in access to healthcare services. Therefore, providing clear instructions and user assistance is essential to ensure that all patient groups can benefit from the system effectively. In terms of gender distribution, male respondents were slightly more represented than females, although the difference was not substantial. This finding suggests that the adoption of the online queue system is relatively balanced across genders. Some studies indicate that men may be more inclined to adopt technologies that emphasize efficiency and quick access, whereas women often place greater importance on usability and clarity of information. Despite these tendencies, the current findings indicate that both groups are able to utilize the system without significant disparity (17,18). Regarding educational background, most respondents had completed secondary or higher education. Education level plays an important role in shaping individuals' ability to understand, evaluate, and utilize digital health systems. Individuals with higher educational attainment are generally better equipped to recognize the benefits of such technologies and use them independently. Nevertheless, the presence of respondents with lower educational levels suggests that the online queue system is relatively accessible to diverse user groups. Even so, individuals with limited educational backgrounds may require more intensive guidance and support to optimize system usage. This highlights the importance of continuous patient education to ensure equitable access and improved service quality. Overall, the diversity of respondent characteristics reflects the wide range of users interacting with the online queue system. This diversity should be taken into account in system development and evaluation to ensure that it remains inclusive and capable of supporting sustainable improvements in healthcare service quality (19,20). The results of this study also demonstrate a significant relationship between the effectiveness of the online queue system and service quality at Dustira Hospital. This finding indicates that system performance plays an important role in shaping patient perceptions of healthcare services. An effective system can streamline service processes, reduce uncertainty related to waiting time, and create a more organized service flow, ultimately leading to better perceived quality. These findings are consistent with previous research showing that effective implementation of healthcare information technology is associated with improved service

quality (21,22). Digital systems that function efficiently enable healthcare providers to deliver faster, more accurate, and better-coordinated services, which positively influence patient perceptions. From a service management perspective, the effectiveness of the online queue system reflects the hospital's capacity to integrate digital solutions into its operational processes. A well-functioning system contributes to better patient flow management and reduces congestion in service areas, creating a more comfortable and orderly environment for patients. Furthermore, system effectiveness has a broader impact on multiple aspects of service quality, including timeliness, procedural clarity, comfort, and interactions between healthcare staff and patients. When administrative processes are streamlined, healthcare providers can allocate more time to direct patient care, thereby enhancing the overall service experience. In the context of healthcare transformation, the effectiveness of digital systems serves as an important indicator of organizational readiness in adopting technology to improve service quality. Previous studies have shown that effective health information systems not only enhance service quality but also strengthen patient trust. This trust is crucial for maintaining a positive institutional image and ensuring long-term service sustainability.

The findings also align with studies indicating that digital health systems contribute positively to both service quality and patient satisfaction. Systems that are responsive to patient needs support continuous improvement in healthcare delivery. Importantly, the multivariate analysis in this study revealed that among the four TAM variables examined, only perceived ease of use had a significant effect on service quality. This suggests that usability is the most critical factor influencing patient perceptions. Respondents who found the system easy to use were significantly more likely to rate service quality positively. This result highlights that ease of use is a key determinant of successful technology implementation in healthcare settings. Systems that are intuitive and simple to operate reduce user frustration, minimize technical barriers, and enhance overall user experience. Even when a system is perceived as useful, its impact may be limited if it is difficult to use. These findings are consistent with previous studies emphasizing that usability plays a fundamental role in technology acceptance. Ease of use influences not only user satisfaction but also their willingness to

continue using the system. In contrast, the lack of a significant relationship between actual system usage and service quality suggests that mere usage does not guarantee a positive experience. Users may still encounter difficulties that limit the perceived benefits of the system. Therefore, perceived ease of use emerges as the most dominant factor in determining service quality within the context of online queue system implementation. To maximize the benefits of the system, hospitals should prioritize usability improvements, including simplifying interface design, ensuring system stability, and providing adequate user guidance and assistance. These efforts are expected to enhance patient experience and support sustainable improvements in healthcare service quality.

CONCLUSION

The univariate findings indicate that most users of the online queue system at Dustira Hospital belong to the productive age group, with a relatively balanced distribution between male and female respondents. In addition, the majority have attained at least a secondary level of education. These characteristics suggest that most participants possess adequate capacity to access and operate the online queue system effectively. The bivariate analysis demonstrates a statistically significant relationship between the effectiveness of the online queue system and perceived service quality. This result implies that the implementation of the system contributes to improving the overall service experience from the patient's perspective. Furthermore, the multivariate analysis identifies perceived ease of use as the most influential factor affecting service quality, indicating that system usability plays a central role in shaping user satisfaction. Based on these findings, Dustira Hospital is encouraged to enhance the performance of its online queue system by prioritizing improvements in usability. Key strategies may include simplifying the application interface, ensuring system reliability, providing clear and user-friendly instructions, and offering adequate assistance for patients who encounter difficulties when using the system. In addition, efforts to improve service quality should address all dimensions of care, including physical facilities, responsiveness, assurance, and empathy. This can be achieved through infrastructure upgrades, strengthening staff capacity and competencies, improving response times, and fostering a more patient-centered and empathetic approach in service delivery. Future

studies are recommended to further explore the role of perceived ease of use in the adoption of online queue systems in healthcare settings. Moreover, subsequent research should consider additional factors related to system implementation, such as human resource readiness, managerial support, and the quality of information technology infrastructure, as these elements may influence the successful utilization of digital systems in enhancing service quality.

Acknowledgement

The authors would like to express their sincere gratitude to Universitas Jenderal Achmad Yani for institutional support. Appreciation is also extended to Dustira Hospital for granting permission to conduct this study and to all respondents who participated and contributed valuable data to this research.

Funding Statement

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Author Contributions

A.M.S.: Conceptualization, methodology, data collection, formal analysis, writing – original draft.

S.S.: Supervision, validation, writing – review & editing.

N.E.M.: Methodology support, data analysis, writing – review & editing.

A.L.R.: Supervision, validation, final approval of manuscript.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request. The data are not publicly available due to privacy and ethical restrictions involving patient information.

REFERENCES

1. Tulungen EEW, Saerang DPE, Maramis JB. Transformasi digital: Peran kepemimpinan digital. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*. 2022;10(2).
2. Nuryadin R, Sobandi A, Santoso B. Digital leadership in the public sector-systematic literature review: Systematic literature review. *Jurnal Ilmu Administrasi: Media Pengembangan Ilmu dan Praktek Administrasi*. 2023;20(1):90–106.
3. Sofiyanto M, Anshori MI, Andriani N. Transformasi kepemimpinan dalam manajemen strategis di era digital: Tinjauan literatur review. *Jurnal Masharif Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah*. 2024;9(1).
4. Farunik CG. Strategi Digital Leadership menurut Pendekatan Kepemimpinan Situasional. *Primanomics: Jurnal Ekonomi & Bisnis*. 2019;17(1):146–58.
5. Christiani AM, Swarjana IK, Wahyuningsih LGNS, Sriasih NK. Determinan Kepuasan Pasien di Rumah Sakit Pemerintah dan Rumah Sakit Swasta: Literature Review. *Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal*. 2024;14(2):547–60.
6. Syafnur A, Kurniawan E, Yusda RA, Muhammad A. Pelatihan Peningkatan Efisiensi Administrasi Gudang melalui Sistem Manajemen Inventori Digital. *Jurnal Pustaka Mitra (Pusat Akses Kajian Mengabdikan Terhadap Masyarakat)*. 2025;5(1):33–7.
7. Sholihah N, Parinduri SK. Hubungan Waktu Tunggu Pelayanan Rawat Jalan Terhadap Kepuasan Pasien BPJS di Poliklinik Jantung Rumah Sakit Islam Bogor Tahun 2019. *Promotor*. 2021;3(6):585–97.
8. Budiono H, Soesetio FXA, Prijatmoko D, Putra BTW. Online Registration Impact on Patient Satisfaction at Bhayangkara Bondowoso Hospital. *Jl-KES (Jurnal Ilmu Kesehatan)*. 2024;8(1):9–17.
9. Supriyati K, Kusumaningsih I. Analisis faktor waktu tunggu pelayanan rawat jalan: Literature review. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*. 2023;6(12):2371–80.
10. Ramadani NDW, Listyorini PI, Sari DP. Perbedaan Tingkat Kepuasan Pasien Pada Sistem Pendaftaran Online dan Offline di RSUD dr. Moewardi Surakarta. *Jurnal Ilmiah Multidisiplin Ilmu*. 2025;2(4):48–54.
11. Wardani AK, Rifai A, Pitoyo AZ. Faktor yang Berhubungan dengan Penerimaan Sistem Pendaftaran Online Rumah Sakit. *J-REMI: Jurnal Rekam Medik Dan Informasi Kesehatan*. 2025;6(2):100–8.

12. Sigit N, Aini NDN. Penerapan Metode Structural Equation Modelling Pada Pengguna Aplikasi Informasi Kesehatan Pojok Kampung. *Jurnal Pendidikan Indonesia: Teori, Penelitian, dan Inovasi*. 2022;2(4).
13. Sa'idah N. Analisis penggunaan sistem pendaftaran online (E-health) berdasarkan unified theory of acceptance and use of technology (uTAUT). *Jurnal Administrasi Kesehatan Indonesia*. 2017;5(1):72-81.
14. Safira VW, Sari TP. Evaluasi penggunaan pendaftaran online dengan metode unified theory of acceptance and use of technology (utaut) di rumah sakit islam ibnu sina pekanbaru. *JHMHS: Journal of Hospital Management and Health Science*. 2020;1(02):24-34.
15. Monshi SS, Maajeeni JE, Aljawi LK, Jaha MJ, Alturkistani MI, Alqurashi YS. Patient Experience with Health Technology in Saudi Arabia: A Systematic Review. *Saudi Journal of Health Systems Research*. 2025;5(3):155-64.
16. Ahmed NJ. Current practice of using technology in health-care delivery in Saudi Arabia: challenges and solutions. *Asian Journal of Pharmaceutics (AJP)*. 2021;15(1).
17. Alharbi A, Alzuwaed J, Qasem H. Evaluation of e-health (Seha) application: a cross-sectional study in Saudi Arabia. *BMC Med Inform Decis Mak*. 2021;21(1):103.
18. Itaar A, Aryanny E, Purnamawati E. Penentuan Jumlah Loker Pelayanan Yang Optimal Di Bpjs Kesehatan Cabang Sidoarjo. *Tekmapro: Journal of Industrial Engineering and Management*. 2018;13(1):1-13.
19. Sangkot HS, Latifah U, Suryandari ESDH, Wijaya A. Analisis pengaruh kepuasan pasien rawat jalan terhadap minat kunjungan ulang di RS X Kota Madiun. *Jurnal Manajemen Kesehatan Indonesia*. 2022;10(2):141-7.
20. Einurkhatun B, Suryoputro A, Fatmasari EY. Analisis tingkat kepuasan pasien terhadap kualitas pelayanan rawat jalan di Puskesmas Duren dan Puskesmas Bergas Kabupaten Semarang tahun 2017. *Jurnal Kesehatan Masyarakat*. 2017;5(4):33-42.
21. Ibrahim MM, Rakhmawati F, Gusti TE, Wulandari A, Maulana I, Nadziroh NU. OPTIMALISASI SISTEM DOKUMENTASI MEDIS MELALUI DESAIN ANTARMUKA E-FORM INFORMED CONSENT. *Jurnal Abdimas Ar Rahma*. 2025;2(2):60-8.
22. Supriyati K, Kusumaningsih I. Analisis faktor waktu tunggu pelayanan rawat jalan: Literature review. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*. 2023;6(12):2371-80.